

REMARKS

This is intended as a full and complete response to the Office Action dated April 18, 2006, having a shortened statutory period for response set to expire on July 18, 2006. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-23 stand rejected. Claims 1-3 and 5-24 remain pending in the application and are shown above. Claim 4 has been cancelled by Applicants without prejudice. Claims 1, 6-9, 19, 21 and 23 are amended to correct matters of form. Claims 5, 10 and 17-18 are amended to clarify the invention. Applicants submit that this amendment does not introduce new matter.

Claim Rejections – 35 U.S.C. § 112

Claims 1-23 stand rejected under 35 U.S.C. § 112, second paragraph.

Regarding claim 1, the Examiner indicates that the term “bevel” renders the claim indefinite because it is unclear what specifically “the bevel” is referring to. Claims 2-9 are rendered indefinite as they are dependent on claim 1. Applicants submit that the term “bevel edge”, which the Examiner indicates to be very clear, has been used to replace the term “bevel” in claim 1. Claims 1-9 are believed to be in condition for allowance. Withdrawal of this rejection is respectfully requested.

Regarding claims 4, 10 and 17, the Examiner indicates that the term “drop” renders the claims indefinite. Claims 5, 11-16, and 18-23 are rendered indefinite as they are dependent on claims 4, 10 and 17. Applicants submit that the term “drop” has been removed from claims 4, 10 and 17, and claims dependent thereon. Claims 4-5 and 10-23 are believed to be in condition for allowance. Withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claims 1-3 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nayak et al.* (U.S. Patent No. 6,494,219, hereafter *Nayak*) in view of *Uzoh et al.* (U.S. Patent No. 6,056,869, hereafter *Uzoh*).

Applicants respectfully traverse the rejection.

Nayak discloses an apparatus and associated method that supplies etchant to an edge bevel removal chamber (Column 3 lines 39-41). *Nayak* teaches that a vacuum chuck 516 may lower or raise a substrate 22 between two positions: a rinse position (Figure 5) and a process position (Figure 6). Rinse water nozzles 532 and 534 spray the substrate 22 with rinse water when the substrate 22 is in the rinse position (column 8 lines 39-57). Nozzles 150 apply etchant onto the substrate 22 when the substrate 22 is in the process position (column 8 line 60 – column 9 line 11). The Examiner argues *Nayak* teaches simultaneous dispense of etchant and rinsing solution because the flow of fluid is prescribed by use of valves via a controller. However, a substrate being processed in the chamber of *Nayak* cannot be in the process position and rinse position simultaneously. Therefore, *Nayak* does not teach dispensing a protective fluid onto a central portion of a substrate simultaneously with dispensing an etching solution onto a bevel edge of a substrate, as set forth in claim 1 and claims dependent thereon.

Uzoh teaches a device for electrochemically deplating metal from side edges and a backside of a semiconductor substrate (Abstract). *Uzoh* teaches that a vacuum chuck 27 having various outlets 29 for directing dionized water and/or nitrogen toward the substrate during deplating (column 5 lines 53-59 and Figure 3a). However, *Uzoh* does not teach the subject matter set forth in claim 1 and claims dependent thereon.

Nayak and *Uzoh*, alone or in combination, do not teach, show or suggest a method for cleaning a bevel edge of a semiconductor substrate comprising rotating the semiconductor substrate on a substrate support member, dispensing an etching solution onto the bevel edge of a production surface of the semiconductor substrate with a first pivotally mounted fluid dispensing nozzle, and dispensing a protective fluid onto a central portion of the production surface simultaneously with the dispensing of the etching solution with a second pivotally mounted fluid dispensing nozzle, as recited in claim 1 and claims dependent thereon.

Claim 1-3 and 9 are believed to be in condition for allowance. Withdrawal of the rejection is respectfully requested.

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nayak* and *Uzoh* as applied to claims 1, 3, and 9 above, and further in view of *Ohmi et al.* (U.S. Patent No. 5,487,398, hereafter *Ohmi*).

Applicants respectfully traverse the rejection.

Nayak and *Uzoh* are discussed above. *Ohmi* teaches a cleaning method and a cleaning apparatus for decreasing the total cost (Abstract). *Ohmi* adds nothing to *Nayak* and *Uzoh* regarding the subject matter set forth in claim 1. Therefore, the combination of *Nayak*, *Uzoh* and *Ohmi* does not teach, show or suggest the claimed subject matter as set forth in claim 1, on which claims 7-8 are dependent on.

Claims 7-8 are believed to be in condition for allowance. Withdrawal of this rejection is respectfully requested.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

Any secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the office action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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